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CONGRESSIONAL DOCUMENT.

HARBOR OF PROVINCETOWN, CAPE COD, MASSACHUSETTS.

Letter from the Secretary of War, accompanied with a Chart of the Harbor of Provincetown, &c.

January 18, 1838. Read and laid upon the table.

DEPARTMENT OF WAR, *January* 17, 1838.

SIR: Herewith I have the honor to transmit a communication from the officer in charge of the Topographical Bureau, accompanied by the chart of the harbor of Provincetown, required by a resolution of the House of Representatives of the 5th instant.

Very respectfully,
Your most obedient servant,
J. R. POINSETT.

Hon. JAMES K. POLK,
Speaker of the House of Representatives.

—

TOPOGRAPHICAL BUREAU, }
Washington, January 17, 1838. }

SIR: I have the honor of submitting to you the reduced chart of the harbor of Provincetown, Massachusetts, called for by a resolution of the House of Representatives of the 5th instant.

Very respectfully,
Your obedient servant,
J. J. ABERT,
Lieut. Col. Topographical Engineers.

Hon. J. R. POINSETT,
Secretary of War.

—

IN THE HOUSE OF REPRESENTATIVES, }
January 19, 1838. }

Mr. REED, from the Committee on Naval Affairs, reported the following resolution, which was read and agreed to by the House:

Resolved, That one thousand copies of the chart of Provincetown harbor, in Massachusetts, in a reduced form, be printed, under the superintendence of the Topographical Bureau; and also, that one thousand copies of a report accompanying the original chart of said harbor, made by Major James D. Graham, December, 1835, be printed.

—

IN THE HOUSE OF REPRESENTATIVES, }
March 7, 1838. }

On motion of Mr. CURTIS, by order of the Committee on Commerce, it was

Resolved, That, in addition to one thousand extra copies of the chart of the extremity of Cape Cod and Provincetown harbor, and of the report containing the sailing directions, heretofore ordered to be printed, under the superintendence of the Topographical Bureau, three thousand other copies of the chart and report be printed; and that two hundred copies be deposited in the Navy Department for its use, and that two hundred copies be deposited in the Library of Congress for safe keeping.

—

Report accompanying the map of the extremity of Cape Cod, Massachusetts, executed during portions of the years 1833, 1834, *and* 1835. *Submitted to the Bureau of Topographical Engineers, by J. D. Graham, Major United States Topographical Engineers, December* 21, 1835.

OFFICE OF TOPOGRAPHICAL ENGINEERS, }
Washington City, December 21, 1835. }

Lieut. Col. J. J. ABERT,
Chief Topographical Engineer.

SIR: I have the honor to submit to you, herewith, a military and hydrographical chart of the extremity of Cape Cod, including the townships of Provincetown and Truro, with their Seacoast, and the harbor of Cape Cod,* State of Massachusetts, projected from surveys executed by your order during portions of the years 1833, 1834, and 1835, in conformity with a requisition from the Board of Engineers for Fortifications, upon a scale of 1 to 5280, or 12 inches to 1 mile.

The object of the chart being to aid in the projection of the works for the military defences of the important harbor formed by the peculiar spiral termination of this cape, and also to aid our ships of war and other vessels in entering it with safety after making this prominent headland, it is proper that the data obtained for the construction of the chart should be briefly stated.

The survey on the land was preceded by the measurement of a base-line from G 2 to G 4, (see the positions of these points designated in red upon the chart,) of 9923.9 feet in length, upon a smooth and almost level surface of ground, which is overflown at every high tide, but is left dry from about one hour after the commencement of the ebb, until about one hour preceding the next high water.

This line was then prolonged to G 5, upon an eminence having the necessary command in relation to other points, and the distance from G 4 to G 5 carefully ascertained to be 123.78 feet.

The point G 1 was also carefully established, though not in the same right line as the measured base, the ground not permitting the line to be prolonged in that direction. During the measurements, the point G 3 was established upon the base-line at a known distance from its extremities.

These preliminary steps gave us the following distances, which were properly verified before commencing the triangulation, viz:

		Feet.
From	G 2 to G 4	9,923.9
"	G 2 to G 5	10,047.68
"	G 2 to G 3	5,076.5
"	G 4 to G 3	4,847.4
"	G 1 to G 5	10,637.37
"	G 3 to G 5	4,971.18

These several lines were ascertained, because it was necessary that the triangulation should be extended in several directions, embracing some points which required shorter bases than the principal one. It will be perceived that they are all, except one, different divisions of the same line.

The triangulation was now extended, by means of a good theodolite, over the whole surface of land embraced within the limits of the survey, by which, points were fixed in horizontal projection upon all the principal eminences, including the three light-houses and the church steeples; upon the shores of the Seacoast, of the Harbor, and of the interior ponds, whether bounded by elevated or low ground; and at the entrances and heads of the inlets.

There have been 99 principal points of triangulation fixed upon the land, and verified by the intersection of at least three arcs described upon the common vertex of two or more separate triangles, all the angles of which had been measured by the theodolite, and no point which was not thus verified, was

* This harbor is sometimes called Provincetown harbor, especially by the neighboring inhabitants; but we have adopted the name of Cape Cod Harbor, because it is most frequently so called in nautical works; added to which, it is bounded partly by the township of Provincetown, and partly by that of Truro; and at the same time that it is one of the finest harbors for ships of war upon the whole of our Atlantic coast, it is the only one at all suitable for that species of vessels throughout the coast of Cape Cod, so called.

again used for the purpose of prolonging the triangulation. In addition to these, there have been 10 secondary points of triangulation fixed by the intersection of three arcs or lines, from a known base, and two angles in each triangle measured with a theodolite; and, for the purpose solely of aiding some of the topographical details of limited extent, upon the most irregular and broken portions of the interior land surface, 41 points have been projected, each one by the intersection of at least four lines whose positions and directions were obtained by placing the theodolite at the required point, and observing the angles subtended by some of the most suitable points of triangulation previously fixed.

These points of triangulation fixed upon the land, are represented upon the chart in *red*, thus ⊙, and have served to check and prevent the accumulation of small errors in the lines traced with the chain and compass for the purpose of delineating the shores of the seacoast, of the harbor, of the inlets, and of the interior ponds; also, the boundaries of marshes, the roads, and the minute topographical features of the ground.

The figures placed upon the eminences and other points upon the land, indicate their elevation in feet and decimals of feet, as determined by the use of the levelling instrument, above the plane of *mean low water*, derived from five hundred and sixty-nine registered low tides, by a permanent tide-staff within the Harbor.

This series of observations upon the tides will be more minutely alluded to hereafter.

The whole range of hills fronting the west and northwest shores of Cape Cod harbor, has been laid down from horizontal curves, traced by means of the levelling instrument, the compass, and chain, at every ten feet elevation between the plane of *mean low water* and their respective summits.

It was considered important that the hills forming this chain, from Creek Round hill to Mount Ararat, inclusive, should be thus minutely delineated, both in contour and elevation, because they will probably influence in an important degree, some of the works to be projected for the military defences of this place.

The following are the heights of some of the most conspicuous points upon the land, as viewed by vessels approaching the Atlantic coast, and in entering the Harbor, expressed in feet and decimals of feet, above the plane of mean low water, viz:

	Feet.
The base of Cape Cod light-house	132
The Clay pounds, (banks of clay, so called, near that light-house,)	130
Hicks's Hill,	89
High head,	75 to 79
High Cedar island, (so called, because it resembles an island when first seen by vessels approaching this part of the coast from sea,)	80
Mount Ararat (in September, 1835,*)	100
Mount Gilboa,	106
Oak head,	104
Trip's Fun hill,	102
Negro head,	38
The Peaked Hills,	40 to 53
The Snake Hills, { The northern peak	73.5
The Snake Hills, { The southern peak	78
Creek Round hill,	84.3
Telegraph hill,	98
High hill,	100
Gifford's hill,	75
Miller's hill,	89
Snow's hill,	77

If nine and a quarter feet be deducted from the above heights, the remainders will be their elevation above the plane of mean high water.

* The influence of the wind is diminishing the height of this hill.

Observations upon the Tides.

In order to obtain as correct information as practicable, in relation to the flow of the tides, and the influence of the winds upon them, a series of observations was commenced at Provincetown, Cape Cod Harbor, on the 1st day of July, 1833, and continued without intermission until the 27th of January 1834, during which period, the time, and height as measured by a permanent tide-staff, of every high and every low tide, were carefully registered, excepting only a very few casual omissions. All the high tides, and some of the low tides, were also registered from the last mentioned date, to the 2d of March following.

Similar registers were kept of the high and low tides at the same place, between the 26th of August and the 21st of September, 1834; also, between the 28th of May and the 27th of July, 1835.

In this manner were obtained the times and the heights of the surface of the sea for 634 high tides and 579 low tides within the Harbor, accompanied by simultaneous remarks upon the direction and strength of the winds, the weather, &c.

These observations are detailed at full length in the annexed tide tables, marked from A to L, inclusive.*

A similar series of observations was made at Race Point, between the 11th of August and the 30th of September, 1833, and from the 3d to the 23d of September, 1834, as will appear by reference to the annexed tide tables marked from M to O, inclusive, embracing 135 high tides, and 123 low tides.

In order to render these observations as accurate as possible, several permanent tide-staves were erected in the vicinity of each of the places above named, and they were all graduated into feet and decimals of feet. The differences of level of the zeros, or planes of reference of the adjacent staves at each place, respectively, were carefully ascertained by means of an Engineer's levelling instrument. The tides were then registered by the staff which afforded the smoothest sea, according to the direction of the wind, and were entered upon the register in reference to one common horizontal plane for each place, respectively; that is to say, all the tides observed within the Harbor are referred to the zero of tide-staff No. 1, and all those observed at Race Point are referred to the zero of tide staff No. 4. The difference of level between the zero marks of No. 1 and No. 4 was only ascrtained by obtaining the reading of mean low, and mean high water, by each.

The *times* of high and low water are expressed in reference to *mean solar time* by civil account, indicated by an excellent chronometer, whose rate was ascertained by frequent astronomical observations. The individuals charged with the registers of the tides kept their watches constantly regulated by the chronometer. They always noted the instant of time when the surface of the water ceased to flow if a high tide, or to ebb if a low tide was to be observed; and, again, the instant of time was noted when the surface of the water could first be perceived to flow in the contrary direction.

The middle of the period of this apparent rest of the surface of the water was noted as the correct time of high or low water. For instance: on the 28th of May, 1835, (see table K,) the tide ceased to fall, or attained its least reading upon the tide-staff at 5h. 48′, a. m., and remained apparently at that height until 5h. 58′, a. m. The elapsed time (ten minutes) will be found noted in the column headed "tide stood;" and the half of that time (five minutes) must

* The series of tide tables is too extensive to allow of our introducing them at full length in this paper; we have therefore selected table K, for the month of June, 1835, for insertion, as it shows sufficiently, for general purposes, the flow of the tides at Provincetown.—*Ed. A. & N. C.*

be added to the first period to obtain 5h. 53′, a. m., which is considered the correct time of low water.

Again, for the correct time of high water on the 28th May: the tide attained its greatest height (11.72 feet upon the tide-staff) at 11h. 58′, p. m., of the 27th, being two minutes before midnight, and remained apparently at rest until eight minutes past midnight. The half-elapsed time (five minutes) being added to 11h 58′, p. m., of the 27th, gives the 28th of May, at 0h. 3′, a. m., as the correct time of high water for that day. In a similar manner were all the times of high and low water obtained.

Whenever there was an undulation of the surface of the sea, a mean was taken between the height of the wave at its rise and fall; and the following are considered, from a number of observations, to be the limit of error arising from that cause in registering the heights of the tides in the Harbor, viz:

1. When the sea is stated to be "perfectly smooth," the error is *nothing*.

2. When the sea is stated to be "smooth," the error is, perhaps, .01 of a foot.

3. When the ea is stated to be "tolerably smooth," the error is, perhaps, .02 of a foot.

4. When the sea is stated to be "somewhat rough," the error is, perhaps, .05 of a foot.

5. When the sea is stated to be "rough," the error is, perhaps, .05 to .1 of a foot.

The annexed tables, P and Q, will show the general results of all the observations upon the tides, both in the Harbor and at Race Point.

It will be seen by these tables that the mean flow of the tide at each of these places is 9.26 feet.

A sufficient number of observations was not made to obtain with accuracy, the mean flow of spring tides at Race Point; but in the Harbor it was ascertained to be 13.87 feet.

It is believed by us that there is no considerable difference in the flow of tide on the coast any where between Truro light-house and Cape Cod Harbor, except what may casually result from the influence of the winds, notwithstanding a different impression has prevailed with many persons in this section of country, upon this subject.

TABLE P.

A recapitulation, showing the flow of the tides at Provincetown Harbor, Cape Cod, Massachusetts, as deduced from 634 registered high tides and 569 registered low tides, measured by a permanent tide-staff, graduated into feet and decimals of feet, during the respective periods herein stated, between the 1st of July, 1833, and the 27th July, 1835.

Periods of observation upon the tides.	AT HIGH WATER. Number of high tides registered.	Sum of all the high tides registered, in feet and decimals.	Heights of the sea measured by a permanent tide-staff, in feet and decimals. Greatest.	Least.	Mean of all the tides at high water.	AT LOW WATER. Number of low tides registered.	Sum of all the low tides registered, in feet and decimals.	Heights of the surface of the sea, measured by permanent tide-staff, in feet and decimals. Greatest.	Least.	Mean of all the tides at low water.	Mean flow of the tides, for each respective period, in feet and decimals, in Provincetown Harbor.
1833.											
July - -	60	770.375	14.975	11.45	12 840	59	202.100	5 100	1.150	3.425	9.415
August - -	60	773.282	15.100	11.11	12.888	60	214.405	4.675	1.425	3.573	9.315
September -	58	741.915	14.750	11.35	12.800	58	205.545	5.025	1.425	3.543	9.257
October - -	60	769.475	16.000	11.15	12.824	60	209.925	5.300	1.025	3.500	9.324
November -	57	708.180	14.880	10.60	12.422	57	191.550	5.300	1.200	3.360	9.062
December -	60	779.830	14.590	11.48	12.980	60	213.220	6.400	1.500	3.553	9.427
1834.											
January - -	60	742.900	15.370	10.15	12.381	49	141.800	5.050	0.000	2.894	9.487
Feb'y 1, to March 2	53	669.210	15.450	10.15	12.626	Not	ascertained	Un'cn.	1.150	Un'cn.	Un'cn.
August 26, to Sept. 21	51	644.310	14.763	10.76	12.633	50	164.155	5.135	1.460	3.283	9.350
1835.											
May 28, to June 30	64	797.989	15.000	11.14	12.468	66	228.890	4.840	.870	3.468	9.000
July 1 to 27 -	51	636.680	14.410	10.77	12.484	50	168.570	4.660	1.450	3.371	9.113
General result of observations made between July 1, 1833, and July 27, 1835,	634	8,034.146	16.000	10.15	12.672	569	1,940.440	6.400	0.000	3.410	9.262

	Feet and decimals.
Mean reading by tide-staff at spring high tides - - - -	15.026
Mean reading by tide-staff at spring low tides - - - -	1.150
Mean flow of spring tides at Cape Cod Harbor - - - -	13.876

	Feet and decimals.
Mean reading by tide-staff at average high tides - - - -	12.672
Mean reading by tide-staff at average low tides - - - -	3.410
Mean flow of the tides at Cape Cod Harbor - - - -	9.262

The difference between the highest and lowest tides registered throughout the survey is 16 feet, both being spring tides; the first increased by a twenty-four hours' gale of wind from the southeast, and the latter diminished by a twenty-four hours' severe gale from the northwest.

TABLE Q.—*A recapitulation showing the flow of the tides at Race Point, Cape Cod, Massachusetts, as deduced from 135 registered high tides and 123 registered low tides, measured by a permanent tide-staff graduated into feet and decimals of feet, during the respective periods herein stated.*

Periods of observation upon the tides.	AT HIGH WATER.					AT LOW WATER.					Mean flow of the tides, for each respective period, in feet and decimals, at Race Point.
	No. of high tides registered.	Sum of all the high tides registered in feet and decimals.	Heights of the sea, measured by permanent tide staff, in feet & decimals.			No. of low tides registered.	Sum of all the low tides registered, in feet and decimals.	Heights of the sea measured by permanent tide staff, in feet & decimals.			
			Greatest.	Least.	Mean of all the tides at high water.			Greatest.	Least.	Mean of all the tides at low water.	
1833.											
August 11 to 31 - -	38	517.55	15.85	11.8	13.62	38	153.85	5.4	2.25	4.048	9.572
September - -	58	767.90	15.50	11.6	13.24	53	227.15	5.7	1.57	4.285	8.955
1834.											
September 3 to 23 - -	39	522.40	15 30	11.45	13.30	32	126.80	5.15	2.40	3.961	9.429
General result of observations on the tides at Race Point	135	1,807.8	15.85	11.45	13.39	123	507.80	5 7	1.57	4.128	9.263

The Soundings.

The soundings throughout the survey have been executed in the following manner:

Lines, varying in length according to the change of depth, the direction and strength of the currents, &c., have been designated by anchoring at their extremities, buoys or boats provided with proper signal flags, whose positions have been fixed by observing from them, with good sextants properly adjusted, the angles subtended by a sufficient number of trigonometrical points previously established on shore. The soundings were then made at equal intervals of time, (noted in seconds by watches kept constantly regulated by the chronometer,) during the passage of a boat from the one point to the other; the rectilinear motion of the boat being always preserved by keeping two fixed objects, at a proper distance apart, covered during the passage. By dividing the lines into portions corresponding to the intervals of time, the soundings have been noted in their proper places upon the chart, after being reduced to the plane of *mean low water*.

These points of triangulation upon the water, amounting in number to 606, are designated upon the chart by small triangles in *blue*, thus △.

Their positions were always verified by a sufficient number of observed angles to give not less than three, and almost always more than that number of lines, intersecting in the same point.

It will be seen that the lines sounded have been varied in their directions so as never to encounter a current which could affect materially the uniform velocity of the boat while sounding, and likewise in such manner as to test the accuracy of the work by numerous crossings.

Whenever a disparity of depth has been shown by the intersection of two or more lines, after a reduction to the plane of mean low water, they have either been rejected, or the suspected lines sounded over again. These instances have, however, been very few indeed, owing to the precautions observed by the officers who have served upon this duty.

Throughout those days which were occupied in sounding, the height of the tide was carefully registered at the nearest tide-staff, at every fifteen minutes of time; thus showing the height of the surface of the sea above the plane of mean low water, at the time the soundings were made, and affording the data necessary for reducing them all to that plane.

Twenty of these quarter-hourly tide-tables, referring partly to the month of June, and partly to the month of July, 1835, are herewith submitted, marked from *a* to *u*, inclusive.

They may be somewhat interesting, as showing from actual observations made with care, the relative velocities of the vertical flow of the surface of the sea, at various stages of the tides, and under the influence of the various positions of the moon.

The soundings have been multiplied so as to show every feature, as regards both the depth, and the nature of the bottom, throughout the Harbor: out in a southeast and east direction from its entrance, for a distance of three to four miles, reaching to twelve and fifteen fathoms; along the interior coast between Long Point and Race Point, as far out as seventeen, twenty, and twenty-five fathoms; and thence along the Atlantic coast until Cape Cod light was brought to bear W. S. W.* in twelve and a half fathoms at low water, the distance from shore being then one and one-third mile.

From Race Point until E. N. E. of the eminence on the land known by the name of "High Cedar island,"† the soundings have been extended out to thirty, twenty-five, and twenty fathoms, attaining here a distance of two and two-thirds miles from the shore. From this point to the eastward, the depth diminishes materially; and it was considered unnecessary to carry the soundings out to the last-mentioned depth any farther upon the coast. They were therefore limited to fourteen and twelve and a half fathoms until E. N. E. of Cape Cod light, where the survey terminated.

Vessels navigating this part of the coast may derive much aid in regulatiug their distance from the shore, by observing frequently the nature and color of the sand at the bottom, as well as the depth. This will appear by reference to the remarks upon the chart.

The deep water runs so close to the extremity of Race Point that we have, at low water, twenty fathoms when within two hundred yards of the low-water mark, the light bearing due East. If you extend your distance farther out from the Point, you will immediately get into twenty-nine or thirty fathoms. Immediately after turning this point, however, the chain of shoals commences, which extends in a direction nearly parallel with the shore, as far eastward as the limits of this survey.

* These bearings, and also those for the sailing directions, are all given *per compass*, or in reference to the Magnetic Meridian.

† This name arises from the circumstance of this height appearing like an island when first seen at sea by vessels approaching the coast.

This shoal has upon it in some places, only nine, ten, and twelve feet, at ordinary low water, and makes very heavy breakers with the wind on shore, or with the heaving of the sea after a gale. It is the most dangerous obstacle for vessels navigating this part of the coast, if unacquainted with its position, and has, even recently, been the scene of many a wreck, attended generally with the loss of lives and property.

The channel which exists between it and the shore, carrying two, three, and four and a half fathoms at different points, at low water, tends to increase the danger if vessels get upon it with the wind on shore; for should they beat over it, the damage is so great that they must generally sink. It is, however, easily avoided in a N. E. wind, if attention be paid to the chart and to the lead. From Cape Cod light to opposite High Cedar island, a distance of four miles, its course is N. W. ½ N. to N. W. ½ W., and its distance from the shore, reckoning out to five fathoms, at ordinary low water, is from nine hundred to thirteen hundred yards. From thence until opposite the Peaked Hills, a distance of five and a quarter miles, its direction is N. W. by W. ½ W., to W. by N.; and its distance from shore, reckoning out to the same depth, is from thirteen hundred to fifteen hundred yards. From thence to Race Point, a distance of two and a half miles, the shoal curves with the shore, and diminishes gradually in width, until it terminates near the Point.

Vessels unacquainted with the coast should always keep well outside of this shoal; for although fishing vessels and other small craft are in the habit of making use of the channel which lies between it and the shore, in fair weather, yet it carries through only sixteen feet at low water, opposite to Cape Cod light. It is, moreover, subject somewhat to change by the action of the sea in heavy gales of wind.

Herring Cove, formed by a curve in the shore between Race Point and the commencement of the Shank-painter Bar, affords good shelter in three to six or eight fathoms, with the wind from N. E. to E. S. E.—Cape Cod harbor may, however be gained with an E. or a N. E. wind with the flood tide, taking care not to stand in on the larboard nearer than eight or ten fathoms, as the bars will then be close aboard.

From Race Point to the outer line of Shank-painter bar, a distance of two miles, and from thence to the most projecting point of Wood-end bar, a distance of one and one-third mile the direction of the channel is very straight, on a course of S. E. by S. ½ S., which will clear five fathoms at low water, and give as much as twenty, twenty-five, and thirty fathoms immediately on the starboard. From Wood-end bar to Long Point, the channel curves round from S. E. by E. ¾ E. to N. E. by E.

After clearing Wood-end bar, you have deep water close into the shore until you come to the small bar which lies off Long Point, the extremity of which would be touched in five fathoms at low water, when Long Point light bears due West, distant five hundred and twenty yards, and Cape Cod light at the same time bearing E. ½ S., and distant five miles and four hundred and seventy yards.

The distance from Wood-end bar to the end of Long Point bar, is 2¾ miles; and the whole distance between Race Point and the end of the last-mentioned bar, measured clear of five fathoms at low water, is six miles and one hundred and forty yards.

The Currents.

Within the Harbor there is but little current, except immediately off, and within Long Point, where it runs strong at mid-tide, both at ebb and flood. There is also a considerable current setting out of East Harbor * at the ebb, owing to the accumulation of water in that harbor, as it is called, and in the creek. This is met by the next flood before being entirely discharged. Off the flats, upon the Truro shore, the current never exceeds a mile and a half per hour.

Between Long Point and Race Point, and from thence down the coast, towards Cape Cod light, a very strong current sets at ebb and flood, in the direction indicated by the line of deepest soundings.

Its velocity may be stated, at mid tide, to be from three to four miles per hour, according to the quarter and declination of the moon. Although its direction is generally parallel with the shore, yet it is somewhat varied by that of the prevailing winds.

These remarks upon the velocity of the current are not the results of actual experiments with the log, but are derived from general observation while engaged upon this part of the coast; they are not, therefore, entered upon the chart. It was our design to have ascertained correctly their direction and strength throughout the extent of coast embraced by the survey, but the time and means allotted for its completion did not admit of our accomplishing this desirable object. It is hoped that a future occasion may admit of its yet being done.

The width and freedom from obstructions of every kind, at the entrance of Cape Cod harbor, and the extent of sea-room upon the Bay side, make it accessible to vessels of the largest class in almost all winds. This advantage, its capacity, depth of water, excellent anchorage, and the complete shelter it affords from all winds, combine to render it one of the most valuable ship harbors upon our coast, whether considered in a commercial or military point of view. It is the only harbor in Cape Cod Bay which it would be altogether safe for vessels of large draught to run for in an easterly gale, accompanied by dark weather, such as a dense fog or snow storm, so prevalent upon this coast.

Projecting, as the extremity of this Cape does, more than thirty miles from the general line of sea-coast, into the Atlantic, renders it frequently an important point of departure for our shipping, trading even from many of our southern ports to the north of Europe; and it must always be an important rendezvous for any naval force destined to cruise upon this part of the coast for its protection in time of war. During the greater part of our late war with Great Britain, it was occupied by the enemy, who kept a strong squadron almost constantly stationed here, enabling him not only to dictate the terms upon which its inhabitants were permitted to exist, but also to cripple our commerce and destroy the property of our citizens, to an amount much greater than would be necessary in expenditures for its complete military defence and security to our own navy.

My instructions in reference to this survey required the latitude and longitude of the three light houses embraced within its limits to be accurately fixed. The only instruments furnished me, however, which could be applied to this object, were a chronometer and the sextant.

For the longitude, a number of chronometrical comparisons were made between the meridians of Provincetown and Boston, which, when the calculations are completed, will be submitted as an appendix to this report.

In reference to the latitude, it must be remarked that the great improvements in astronomical instruments which have been wrought within a few years, have created a demand for a corresponding accuracy in stating the geographical positions of those important beacons and head-lands so much depended upon to guide the mariner safely on his way, which

* The entrance into East Harbor is at the extremity of Beach Point. It is very shoal, both at its entrance and within it, having only 1 to 3 feet at ordinary low water. No other use is made of it as a harbor, than to moor or lay up the small craft belonging to this place, in the winter season, to protect them from the ice.

could not be ensured by the use of the apparatus furnished me for this purpose. I have therefore preferred, as the more accurate mode, to assume the latitude and longitude of Cape Cod light in Truro,* as determined by the use of the repeating circle for the former, and a number of chronometrical comparisons for the latter, by Robert Treat Paine, Esq., a gentleman of science associated with the trigonometrical survey of the State of Massachusetts, and to deduce from that point, by our triangulation, the positions in latitude and longitude of the other two light houses; the true meridian having been laid down upon our chart in comparison with the sides of some of our principal triangles, by means of observations made with the theodolite upon the star Polaris, when in its greatest eastern elongation.

Assuming the position of Cape Cod light house, as stated by Mr. Paine,† to be 42° 2′ 19″ north latitude, and 70° 4′ 22″.5, or 4h. 40′ 17½″ west longitude from Greenwich, our triangulation gives the other two points, as follows:

	N. latitude.	W. lon. from Greenwich.
Race point light house.*	42° 3′ 38.6″	70° 15′ 17.3″	4 h. 41′ 1.1″
Long point lig't house,†	42 1 55	70 10 50	4 40 43
Also, Universalist church steeple,	42 2 46 4	70 12 7·9	4 40 48.5

* Race Point light is a *revolving* light.
† Long Point light is *stationary*.

The magnetic variation, from our observations is 9° 20′ west.

In the surveys and projections for the construction of this chart, I have been assisted by the following officers of the line of the army, viz:

In 1833: By Lieut. James F. Izard, 2d regiment U. S. infantry; Lieut. Thos. J. Lee, 4th regiment U. S. artillery; Lieut. John N. Macomb, 4th regiment U. S. artillery.

In 1834: By Lieut. J. E. Johnston, 4th regiment U. S. artillery; Lieut. J. E. Henderson, 2d regiment U. S. artillery.

In 1835: By Lieut. A. A. Humphreys, 2d regiment U. S. artillery; Lieut. J. N. Macomb, 4th regiment U. S. artillery; Lieut. J. E. Henderson, 2d regiment U. S. artillery; Mr. Wm. R. Palmer, U. S. assistant civil engineer.

I take great pleasure in here stating to the Bureau, that all the duties which have devolved upon these gentlemen in reference to this service, have been performed with a zeal and ability highly creditable to them. To their scientific attainments, and skill in the use of the instruments, both in the field and in the office, I am in a great measure indebted for the accuracy of the chart.

I have the honor to submit herewith, also, a detailed survey upon a scale of 1 to 600, or 1 foot to 200 yards, of the ground between Long Point and Wood end, executed agreeably to the requisition of the Board of Engineers for Fortifications, and represented by horizontal curves at every three feet elevation above the plane of mean low water.

This survey was executed by Lieut. J. E. Johnston, Lieut. J. E. Henderson, and Mr. W. R. Palmer, in 1834 and 1835, and projected by Mr. Palmer from the original notes. The accuracy and minute details of all the features of the ground represented by this map are equally creditable to those gentlemen.

All which is respectfully submitted.

JAMES D. GRAHAM,
Major U. S. Topographical Engineers.

[For Table K. see p. 360–1.]

* This is sometimes also called "the Highland light." It is a *stationary* light.
† See the American Almanac for the year 1836.

MISCELLANY.

NAVAL ANECDOTES.

From Sir J. Barrow's Life of Lord Howe.

ORIGIN OF THE UNIFORM OF THE NAVY.—Some old admirals at one of their clubs resolved, "that a uniform dress is useful and necessary for commissioned officers, agreeable to the practice of other nations," and a committee was appointed to wait on the Duke of Bedford, then first lord of the admiralty. Admiral Forbes was finally selected for this office. He was shown into a room surrounded with dresses. On being asked which he thought most appropriate, he said, "one with red and blue, or blue and red, as these were our national colors." "No," replied his grace, "the king has settled it otherwise; he saw my dutchess riding in the park a few days in a habit of blue faced with white, which took the fancy of his majesty, and he ordered it to be the uniform of the royal navy;" and in 1748 it was established accordingly. Red has now superseded the white, and thus his late majesty, William IV., has restored us our national colors.

THE RED FLAG AT THE MAIN.—It is generally known that, until the early part of the present century, the red flag at the main had no existence; but it is not known why the three classes of that rank should have been left incomplete. In allusion to an idle story, that one of the Van Tromp or De Ruyters carried off our red flag of a full admiral, or stole it from Sheerness or Chatham when they blocked up the Thames, Sir John Barrow remarks—that whether England ever had a red flag at the main, or not, remains at this day an undecided question; as is also that of this color having only two classes, whilst the white and blue squadrons were complete. An admiral of the white then held the highest rank in the navy, except the admiral of the fleet. The battle of Trafalgar, if it did not restore, contributed mainly to give the navy the red flag at the main. A new edition of the general instructions was then preparing which came out the following year, and in them the three ranks of the three colors were made complete.

While in the Princess Amelia, a circumstance occurred which, trifling in itself, furnished an instance of that cool and unruffled conduct of Lord Howe, which was conspicuous on all occasions where danger existed or was apprehended. While asleep in his cabin, the lieutenant of the watch suddenly going to his bedside called out, in apparent agitation, "My lord, the ship is on fire close to the magazine; but don't be frightened, my lord, it will soon be got under." "Frightened, sir, what do you mean by that? I never was frightened in my life;" and looking the lieutenant full in the face, he said to him, coolly, "Pray, sir, how does a man feel when he is frightened? I need not ask how he looks. I will be with you immediately; but take care that his royal highness is not disturbed."

When captain of the Magnanime, a gale of wind on the lee shore, off the coast of France, induced him to anchor. In the course of the night it blew tremendously, but Howe having made all snug with two anchors a-head, went off deck to his cabin, where he took up a book; presently, however, the lieutenant of the watch came down in a great haste, and with a face of woe said, "I am sorry to inform you, my lord, that the anchors are coming home." "They are much in the right," replied Howe, cool-

ly, "I don't know who would stay abroad such a night as this."

Lord Howe made several alterations from time to time, and among others, in late years, built and fitted up a library, resembling in its shape and arrangements the cabin of the Queen Charlotte, his flag ship in the battle of the 1st of June. Before this was done, he frequently regretted when on shore the walks he used to enjoy in the spacious gallery of his favorite three-decker. That accommodation to his majesty's ships has of late years been grievously abridged by the introduction of round sterns, under the surveyorship of Sir Robert Seppings, which, though giving unquestionable additional strength to the afterpart of a ship, by carrying up the timbers on the same system as those of the fore-part, greatly diminishes the beauty of the old overhanging sterns.

Sir Charles Pole being appointed in the Russian armament to a guard ship at Sheerness, Lord Boringdon, as a west country friend, applied to Lord Howe, when first lord of the admiralty, to have him removed to one stationed at Plymouth, as more convenient, by being near to his family connexions. "My lord," said Howe, "it is the first time I have heard a private convenience spoken about within these walls."

Just as the Charlotte was closing with the Montague, Lord Howe, who was himself conning the ship, called out to Bowen to starboard the helm, to which Bowen remarked, that if they did so she would be on board the next ship, the Jacobin; to this his lordship replied sharply, "what is that to you sir?" Bowen, a little nettled, said, in an under tone, "D—n my eyes, if *I* care if *you* don't; I'll go near enough to singe some of our whiskers." Lord Howe heard him, and turning to his captain, said, "That's a fine fellow, Curtis."

The sailors on board the Charlotte were discussing the probable honors awaiting their beloved admiral. One voted him a marquis. "A marquis, you blockhead," says another, "the king must make him one of the blood royal."

Some time after the battle, a deputation of the petty officers and seamen requested Bowen to ask Lord Howe if they might have the gratification of congratulating his lordship on the victory he had gained, and of thanking him for having led them so gloriously into battle. On receiving them on the quarter-deck, Lord Howe himself being on the front of the poop, was so affected that he could only say, with a faultering voice, and his eyes glistening with tears, "No, no, I thank *you*; it is *you*, my brave lads—it is you, not I, that have conquered." The honest and blunt Bowen, in telling this to a friend, said, "I could myself have cried most heartily to see the veteran hero so affected."

MILITARY ANECDOTES.

From the Missouri Saturday News.

[EDITED BY A LATE OFFICER OF THE ARMY.]

FRONTIER INCIDENT.—When General Hull was marching, a little before the declaration of war, at the head of the northwestern army, through the black swamp, he halted in the middle of the day, with his suite, on a dry spot of ground, to dine. A lady, wife of one of the officers, travelled on horseback with the old General during the day, as the duties of her husband with his company denied him the pleasure of being at her side until the camp was formed at night. In the instance to which we refer, the lady lingered at the spot where she had dined until her husband, who commanded the rear-guard, should arrive. The purpose of her stay was to enact one of those acceptable little duties, the manner of which it is easier to name than truly define. She was preparing his frugal meal, with the white napkin envelope enclosing the few comforts of life which a soldier can command in the field, when the General and his aids rode forward. Before the rear guard came up, a shower of rain fell, and the lady sheltered herself beneath the bark which had been used by a band of Indians as the roof of a temporary lodge. Not long after the departure of the General, she observed that he had left his sword and belt behind him.

When the lady was ready to proceed, after her husband had arrived, she buckled the belt of the military chief around her waist, after taking up a yard or two in length to adapt it to a more fragile form, thus converting it into a zone, the golden embroidery of which was not inappropriate. When she overtook the sober-paced dignitary, the heroine playfully inquired—

"Are you in arrest, General?"

"In arrest!" exclaimed the warrior, awaking from his dreamy musings, "I can scarcely comprehend your meaning, madam."

"Seeing you without side-arms, General, I conjectured you must have fallen under the censure of the Government. No report to that effect had reached me, I assure you."

"Bless my life!" exclaimed the unarmed chieftain, "I have lost my sword, ill omen as it is! Abram!" continued he, addressing his son, who was one of his aids, "gallop back and look for my sword, and do not return without it. A pretty figure I am making at the head of an army in the field, without side-arms!"

"You must be afflicted with absence of mind, General," said the lady, "and dreaming, doubtless of the laurel which you are destined shortly to wear."

"To tell you the truth, madam," said he, "I was arranging, in my mind, the stirring rhetoric of a proclamation, with which I shall astound the enemy on our arrival at Detroit."

"Pray, recite to me a passage or two of the forthcoming production; you know we, who are called the weaker vessels, are sometimes tasteful critics. I may suggest the rounding of a period, which would scatter the enemy's columns more effectually than grape and cannister. You know we are killing, sometimes."

"Well, madam,' said the General, "as I respect your judgment and taste, I will give you a paragraph; (I hope Abram will find my sword.) I shall begin thus—'Canadians! the mighty army I command is only the van guard of a much greater which will follow, and trample the Canadas under foot!'"

"That will do, General—take your sword," said the lady, "you have much to do."

CAMP REMINISCENCES.—A young subaltern of Green Bush, about a month after the declaration of war, turned out in the line of his regiment, a little after guard mounting, to witness a military punishment for the first time during his short period of service. A soldier had been sentenced to the whirligig. He was put into a circular cage, to the roof of which his hands were lashed so as to secure him in an erect posture. The adjutant on duty was directed to see the sentence executed. He accordingly placed a non-commissioned officer on the rounds of the ladder, who continued to turn the machine until reason forsook the culprit, and his moaning accents seemed like the death-wailings which have broke the stillness in the cells of the inquisition. An officer of rank now interposed, perceiving, evidently, that the object of the sentence had been misunderstood. The soldier was taken down, and recovered in about three weeks.

It was about this period that the commanding General sent for a lieutentant of dragoons, who chanced to be officer of the day, and directed him to drum an old man out of the camp. The offence for which this indignity was inflicted, consisted in having peddled among the soldiers the speech of General German, made in the Senate of the United States, against the war. He performed his duty promptly, and amused the officers at the mess-table afterwards, by a detail of particulars, not omitting the interesting fact, that the honorable senator, who pronounced this objectionable speech, was his *father!*

TABLE K.

Register of the tides at high and low water, at Provincetown Harbor, Cape Cod, Massachusetts, under the direction of Major James D. Graham, United States Topographical Engineers, from May 28, to June 30, 1835.

HIGH WATER.								LOW WATER.							
DATE.		Height of tide in feet and decimals.	WIND.		WEATHER.	Tide stood in minutes.	SEA.	DATE.	Height of tide in feet and decimals.	WIND.		WEATHER.	Tide stood, in minutes.	SEA.	
1835.	Mean solar time—civil account.		Course.	Strength.				Mean solar time—civil account		Course.	Strength.				
	h. m.							h. m.							
May 28	There was but	one	high tide	on the 28th of	May			5 53 a m	3.39	S E	Very Mod.	Clear	10	Smooth	
	0 3 p m	11.72	E S E	Gentle	Foggy	10	Tolera. smooth	6 8 p m	4.39	S	Nearly calm	Thick fog	5	Quite smooth	
29	0 33 a m	12.99	S W	Moderate	Thick fog	5	Smooth	6 33 a m	3.29	S S W	Gentle	Thick fog	0	Quite smooth	
	0 43 p m	11.85	S W	Strong	Cloudy	0	Smooth	6 16 p m	4.69	W S W	Strong	Clear	5	Tolera. smooth	
30	0 55 a m	13.04	W	Moderate	Clear	15	Smooth	7 10 a m	3.34	W	Gentle	Clear	5	Smooth	
	1 32 p m	11.49	N N E	Gentle	Clear	0	Smooth	7 21 p m	4.42	Calm	Calm	Clear	4	Smooth	
31	1 48 a m	12.615	——	Calm	Clear	0	Perf'ly smooth	7 48 a m	3.265	N N E	Moderate	Clear	6	Smooth	
	2 13 p m	11.34	——	Calm	Clear	5	Perf'ly smooth	8 8 p m	4.54	S S W	Gentle	Clear	10	Some't rough	
June 1	a m lost	Lost	S S W	Strong	Cloudy	–	Rough	8 29 a m	3.565	S S W	Fresh	Rain	10	Some't rough	
	2 48 p m	11.525	N W	Gentle	Clear	0	Smooth	8 54 p m	4.39	N W	Moderate	Clear	4	Smooth	
2	3 15 a m	12.44	N W	Very moder.	Clear	6	Smooth	9 24 a m	3.34	W	Moderate	Clear	15	Smooth	
	3 45 p m	11.375	W S W	Strong	Clear	8	Tolera. smooth	9 45 p m	4.49	W by S	Strong	Clear	12	Some't rough	
3	4 0 a m	12.375	N	Gentle	Clear	10	Smooth	10 16 a m	3.34	E N E	Gentle	Clear	4	Smooth	
	4 36 p m	11.45	E	Gentle	Clear	10	Smooth	10 40 p m	4.44	S S E	Very mod.	Clear	8	Tolera. smooth	
4	4 43 a m	12.3	S W	Gentle	Clear	6	Smooth	11 5 a m	3.315	S W	Gentle	Clear	5½	Tolera. smooth	
	5 23 p m	11.65	S W	Gentle	Thick fog	24	Tolera. smooth	11 25 p m	4.34	S W	Strong	Foggy	10	Tolera. smooth	
5	5 50 a m	12.25	S W	Strong	Foggy	10	Tolera. smooth	There was but	one	low tide	on the 5th of	June			
	6 26 p m	12.15	W	Gentle	Rain	9	Smooth	0 14 p m	3.34	S W	Strong	Foggy	9½	Tolera. smooth	
6	6 52 a m	12.75	N	Gentle	Clear	4	Perf'ly smooth	0 27 a m	4.0	N W	Gentle	Clear	0	Smooth	
	7 25 p m	13.025	E	Gentle	Clear	6	Smooth	1 12 p m	3.515	N E	Gentle	Clear	12	Tolera. smooth	
7	7 46 a m	12.6	E	Strong	Cloudy	15	Some't rough	1 33 a m	3.215	N	Very mod.	Clear	10	Perf'ly smooth	
	8 13 p m	13.125	E S E	Gentle	Clear	9	Smooth	2 3 p m	2.66	E N E	Strong	Clear	7	Tolera. smooth	
8	8 52 a m	12.15	W N W	Very moder.	Clear	8	Smooth	2 36 a m	1.965	Calm	Calm	Clear	5	Perf'ly smooth	
	9 12 p m	13.35	S W	Strong	Clear	5	Some't rough	2 57 p m	2.1	S W	Strong	Clear	8	Tolera. smooth	
9	9 43 a m	12.45	S W	Gentle	Clear	6	Tolera. smooth	3 33 a m	1.34	S W	Strong	Clear	8	Smooth	
	10 1 p m	14.0	S W	Strong	Clear	10	Tolera. smooth	3 52 p m	2.1	S W	Strong	Clear	10	Tolera. smooth	
10	10 45 a m	13.0	Variable	Nearly calm	Clear	10	Perf'ly smooth	4 30 a m	1.28	W	Moderate	Clear	10	Perf'ly smooth	
	11 7 p m	15.0	E S E	Gentle	Cloudy	0	Some't rough	4 47 p m	2.515	E S E	Strong	Some rain, cloudy	0	Some't rough*	
11	11 31 a m	12.975	S	Very moder.	Clear	8	Smooth	5 22 a m	1.24	E S E	Gentle	Cloudy	10	Tolera. smooth	
	11 55 p m	14.325	S W	Strong	Thick Fog		Tolera. smooth	5 41 p m	2.265	S S W	Moderate	Clear	8	Tolera. smooth	
12	There was but	one	high tide	on the 12th of	June			6 23 a m	0.87	S W	Strong	Thick fog	3	Smooth	
	0 35 p m	12.55	S W	Strong	Foggy	10	Tolera. smooth	6 35 p m	2.29	S W	Gentle	Foggy	5	Tolera. smooth	
13	1 3 a m	14.44	S W	Moderate	Foggy	8	Tolera. smooth	7 20 a m	1.58	S S W	Gentle	Rain and fog	2	Smooth	

	1 30 p m	12.85	S W	Very mod.	Clear	9	Smooth	7 25 p m	3.1	S W	Very light	Some rain	0	Smooth‖
14	1 46 a m	14.15	Calm	Calm	Clear	4	Perf'ly smooth	8 7 a m	2.04	W N W	Very light	Clear	7	Smooth
	2 27 p m	12.64	N N W	Moderate	Clear	12	Perf'ly smooth	8 30 p m	3.5	E N E	Strong	Cloudy	15	Rough
15	2 35 a m	13.65	E N E	Gentle	Clear	10	Tolera. smooth	9 1 a m	2.44	N E	Strong	Clear	8	Some't rough
	3 21 p m	12.17	N E	Moderate	Clear	6	Smooth	9 10 1-2 p m	3.69	Calm	Calm	Clear	8	Perf'ly smooth
16	3 42 a m	12.97	Calm	Calm	Clear	23	Perf'ly smooth	9 46 1-2 a m	2.87	S W	Very light	Clear	13	Some't rough
	3 51 1-2 p m	12.075	S W	Strong	Clear	13	Some't rough	9 57 p m	4.14	S W	Strong	B kn clouds	15	Rough
17	4 20 a m	12.95	W S W	Gentle	Rain	5	Smooth	10 46 a m	3.515	N W	Strong	Clear	4	Tolera. smooth
	5 11 p m	12.05	N	Quite mod.	Clear	4	Perf'ly smooth	11 13 p m	4.215	Calm	Calm	Clear	7	Perf'ly smooth
18	5 33 1-2 a m	12.26	Calm	Calm	Clear	5	Perf'ly smooth	11 38 1-2 a m	3.715	Calm	Calm	Clear	9	Perf'ly smooth
	6 6 1-2 p m	12.10	S W	Gentle	Clear	13	Smooth	There was but	one	low tide on	the 18th of	June		
19	6 20 a m	11.95	S W	Gentle	Clear	10	Smooth	0 17 a m	4.44	S W	Gentle	Clear	10	Tolera. smooth
	6 44 p m	12.15	S W	Quite strong	Cloudy	8	Rough	0 36 p m	4.37	S W	Quite strong	Cloudy	20	Some't rough
20	7 14 a m	12.125	W S W	Strong	Clear	8	Some't rough	1 10 a m	4.84	S S W	Fresh gale	Rain th'r & L	15	Rough
	7 44 1-2 p m	12.175	N W	Gentle	Clear	19	Perf'ly smooth	1 25 p m	4.6	N W by W	Strong	Clear	8	Tolera. smooth
21	8 10 1-2 a m	11.275	W N W	Gentle	Clear	8	Smooth	2 1 a m	4.14	N W	Gentle	Clear	8	Smooth
	8 35 p m	12.3	Calm	Calm	Clear	10	Tolera. smooth	2 25 p m	4.54	S W	Quite strong	Clear	10	Tolera. smooth
22	9 8 1-2 a m	11.139	W	Gentle	Clear	7	Perf'ly smooth	2 56 1-2 a m	4.615	W N W	Light	Clear	13	Smooth
	9 28 p m	12.53	W S W	Gentle	Cloudy	10	Tolera. smooth	3 10 p m	4.365	S W	Strong	Clear	20	Rough
23	9 53 a m	11.35	N	Gentle	Clear	10	Perf'ly smooth	3 40 a m	3.89	Calm	Calm	Cloudy	15	Perf'ly smooth
	10 0 1-2 p m	12.46	S W	Gentle	Cloudy	5	Smooth	3 45 p m	4.53	N W	Light	Clear	15	Smooth
24	10 35 a m	11.36	W S W	Moderate	Clear	8	Smooth	4 15 a m	3.515	S W	Moderate	Clear	8	Smooth
	10 50 p m	12.7	S W	Gentle	Clear	10	Tolera. smooth	4 30 p m	4.465	Calm	Calm	Clear	6	Per. smooth‡
25	11 15 a m	11.37	Calm	Calm	Clear	10	Smooth	4 57 a m	3.28	S W	Quite mode'e	Clear	4	Smooth
	11 21 p m	12.7	S W	Moderate	Cloudy	8	Tolera. smooth	5 6 p m	4.315	S W	Strong	Clear	12	Some't rough
26	11 51 1-2 a m	11.55	S E	Gentle	Cloudy	9	Tolera. smooth	5 48 1-2 a m	3.115	S S W	Gentle breeze	Cloudy	15	Some't rough
	There was but	one	high tide on	the 26th of	June			6 30 p m	4.3	S E	Gentle	Cloudy	15	Rough
27	0 10 a m	13.04	S E	Gentle	Foggy	20	Tolera. smooth	6 27 a m	3.1	E	Gentle	Foggy	12	Some't rough
	0 37 1-2 p m	11.775	E S E	Gentle	Foggy	15	Tolera. smooth	6 35 p m	4.365	E S E	Gentle	Foggy	10	Some't rough
28	0 45 a m	13.225	S	Moderate	Foggy	7	Tolera. smooth	6 54 a m	3.14	S	Moderate	Foggy	8	Tolera. smooth
	1 19 p m	11·85	S S E	Gentle	Clear	7	Tolera. smooth	7 22 1-2 p m	4.5	S W	Gentle	Foggy	7	Some't rough
29	1 17 1-2 a m	13.425	Calm	Calm	Clear	5	Smooth	7 35 a m	3.34	W S W	Gentle	Clear	8	Some't rough
	1 48 p m	12.1	W S W	Strong	Clear	7	Smooth	7 45 p m	4.3	W S W	Gentle	Clear	8	Smooth
30	1 50 a m	13.15	Calm	Calm	Cloudy	6	Smooth	8 19 a m	3.28	W S W	Gentle	Clear	8	Smooth
	2 44 p m	12.125	N W	Gentle	Clear	4	Smooth	8 45 p m	4.1	N W	Quite strong	Clear	0	Smooth‖

		Greatest	Least.	Mean of all the tides.	Mean flow of tide.
Heights of the surface of the sea, measured by permanent tide-staff, between the 28th May and 30th June, 1835 -	At high water	Feet 15.00	Feet. 11.139	Feet. 12·468	Feet. 9.000
	At low water	4.84	0.870	3.468	
If the month of June, 1835, be taken separately, the quantities will stand thus - -	At high water	15.00	11.139	12.507	9.101
	At low water	4.84	0.870	3.406	

* Tide stood no time, and flowed but 0.1 in 15′.
‡ Tide ran ebb 5h. 55′ ‖ Tide stood no time.

The observations recorded in the foregoing table, were all made with great care, in order that they might serve a useful purpose by comparison with simultaneous observations of a similar nature, which it was known were to be made throughout all parts of the world by the request of the Lords Commissioners of the Admiralty of Great Britain, in order to obtain correct data for further investigations concerning the theory of the tides.

J. D. GRAHAM,
Major U. S. Top. Engineers.

WASHINGTON CITY;
THURSDAY, ... JUNE 7, 1838.

THE PROSPECT BEFORE US.

The signs of the times on all sides are portentous of a general disturbance of the friendly relations which have subsisted for more than twenty years between the Christian powers of the world.

If we look at home, we have on one hand the prospect of another outbreak on our Canada frontier. The burning of the British steamboat Sir Robert Peel (in alleged revenge for the destruction of the steamboat Caroline) will lead to further retaliation, or a suspension of intercourse with our Canadian neighbors. We have not a single soldier along the border of Lake Ontario, if we except a company of recruits at Fort Niagara.

The blockade of the ports of Mexico, by a French squadron will cause an interruption to our commerce in that quarter, and may induce attempts by some of our fast sailing vessels to violate it.

Going farther south we hear of internal commotions in the Brazilian provinces, and of the blockade of the ports in the Rio la Plata by another French squadron.

If we extend our enquiries round Cape Horn, we learn that the port of Valparaiso was blockaded by a British squadron,* and a war is raging between the Republics of Chili and Peru.

In Europe, although every thing at present appears to be quiescent, saving the civil war in Spain, the seeds of jealousy and discord are by no means annihilated.

Our legislators, in the meanwhile, are looking on with seeming unconcern, not dreaming that they are on the edge of a precipice or the crater of a volcano, down whose engulphing sides a few acts of indiscretion may prematurely hurry us.

Our military force—what is it? At most, but a handful of men, the greater portion of whom are concentrated in Florida and Tennessee, to compel the emigration of two tribes of Indians.

Our naval force—nominally large—is not in a condition for immediate and active service. In the Mediterranean we have (or had recently) two frigates, both of which, according to rumor, are on their way home, one because of the expiration of her crew's term of service, and the other because of requiring repairs.

Is this a state of things befitting a nation whose resources are ample, and almost inexhaustible, and whose position authorises her to take the first rank among the nations of the earth?

Midsummer is rapidly approaching, six months of the session of Congress have elapsed, and nothing is yet done to increase the army, every branch of which is inadequate to meet the pressing demands upon its services. Our fortifications are deserted—some of our arsenals are without officers, and none of them have enough—the engineers and topographical engineers compelled to lose the best portion of the year for want of appropriations—and the officers of every grade looking with an anxious if not a vain expectation to Congress for some measures that will improve their condition. We do not perceive how the Members of that body can reconcile to their consciences, or satisfactorily explain to their constituents, their omission to protect the vital interests of the country.

* Since this was written, a vessel has arrived at Baltimore from Valparaiso, a passenger on board of which contradicts the reported blockade of that port.

SURVEY OF CAPE COD, OR PROVINCETOWN, HARBOR.—The report inserted in the present number, of the survey of this commodious harbor, made by Major J. D. GRAHAM, of the corps of Topographical Engineers, and his assistants, offers a suitable opportunity not only for calling public attention to its importance in a military as well as commercial point of view, but also for exhibiting the value of the services rendered by the corps of Topographical Engineers—this being but one of the many works upon which that corps has been industriously engaged.

When we take into consideration the extent of country yet unexplored, the number of assailable points, and the advantages of early action, it must be manifest that neither of the corps of our military establishment is sufficiently large to discharge the duties required of them respectively.

We have examined the chart which accompanied this Report, and were forcibly struck with the minuteness, and elaborate manner, in which the whole has been executed. The work occupied the greater part of three seasons, embracing nine months of active operations. A copy of this chart upon a reduced scale, bringing it to a size convenient for the use of navigators, is now in the hands of a skilful artist, Mr. W. J. Stone of our city, for engraving, and will shortly be issued as an appendage to the Report now published.

The surface of land and water covered by this chart from actual survey, is equal to sixty-five square miles, of which the land surface occupies twenty-five square miles, and the hydrographic portion, or water surface, occupies forty square miles; the whole showing both the topographical features of the ground, and the soundings.

For the construction of the chart, 150 points of triangulation are shown upon the land, as fixed by the theodolite, which, besides being used as the basis of the hydrographical operations, have served to verify the topographical details of the ground—such as the chaining and coursing the shores of the Ship Harbor, of the sea-coast, of the inlets, and of the interior ponds; also the boundaries of the marshes, the roads, &c., &c. The whole distance coursed and chained for these purposes on shore, amounts to 141 miles.

There are also 606 other points of triangulation fixed upon the water surface by the use of the sextant, and "the problem of the three points" as it is usually called. Each one of these points was verified by a double set of observations, and being designated by buoys firmly anchored, served to locate in their true positions, the lines sounded. The number of soundings laid down upon the chart from actual

castings of the lead is 13,119. They give the depths in FEET at ordinary or mean low water, and are so multiplied and distributed as to show minutely the character of this important Ship Harbor, and of all the sea-coast included between the Highland Light in Truro, and Race Point Light, and thence up the coast of Cape Cod Bay, until the Highland or Truro Light was brought to bear N. E. by E. in 8 fathoms at low water.

The shoals forming that dangerous chain stretching from Race Point to Truro Light, and thence along the coast, which has been so frequently fatal to navigators, from want of a proper knowledge of its true position and extent, is minutely laid down upon this chart, and also the Swash Channel which lies between it and the shore. The soundings are carried out seaward beyond this chain of shoals, into deep water, as far as 1¼ to 2, 3, and 3½ miles from the shore, attaining a depth of 13, 20, 25, and 30 fathoms at low water, so that vessels may, even in dark weather, aided by the chart, approach the coast and come safely to anchor in the Harbor of Provincetown, without any fear of encountering the shoals, simply by observing frequently the size and color of the sand at the bottom, as well as the depth, as indicated by the lead.

The value of Cape Cod Harbor to our naval and mercantile marine in time of war is inappreciable. In possession of an enemy, it would afford facilities for annoying our commerce, without exposure to the gales that so often sweep along the coast. Fortified, and in the occupancy of a portion of our navy, it offers a secure retreat, accessible at all seasons, and sheltered from every storm. It is the only harbor between Cape Ann and Narragansett Bay offering a safe refuge to ships of war, and merchant vessels of the largest class during an easterly gale; for excellent as Boston harbor is known to be when once within its anchorage, its narrow entrance and rocky bound shores render the hazard too great to attempt to gain it in the dark weather of an easterly gale, as the lights do not then show until close under them.

In addition to the names already published, the following gentlemen have been invited by the Secretary of War to attend the examination of the Cadets at the Military Academy, which commenced on Monday last:

Gen. H. Knickerbocker,	New York.
John Page, Esq.,	Virginia.
C. F. McCoy, Esq.,	Georgia.
W. R. Griffith, Esq.,	Kentucky.
Gen. James Taylor,	do.
Col. J. G. Totten,	Eng'r Corps.
Gen. J. L. Smith,	do.

Letters have been received from Commodore BALLARD, dated Valparaiso, Feb. 28, in which he says that the officers and crews of the squadron were in a state of good health. The Falmouth was last heard from on the 31st January—believed to be at Callao. Lieut. Boutwell has been transferred from the Lexington to the North Carolina.

PROMOTIONS AND APPOINTMENT IN THE NAVY,

By and with the advice and consent of the Senate.

DAVID GEISINGER, to be a Captain from the 24th May, 1838, to supply a vacancy occasioned by the death of M. T. Woolsey.

WILLIAM INMAN, to be a Commander from the 24th May, 1838, *vice* D. Geisinger, promoted.

WILLIAM I. H. ROBERTSON, to be a Lieutenant from the 24th May, 1838, *vice* W. Inman, promoted.

JOHN C. HOLLAND, of New York, to be a Purser, June 1.

The President of the United States, by and with the advice and consent of the Senate, has conferred the *Brevet* of Colonel on Lieut. Colonel WILLIAM S. FOSTER of the 4th regiment U. S. Infantry, to take effect from the 25th of December, 1837, for "distinguished services in Florida, and particularly in the battle of the Kissimmee."

GRAHAM'S SHOAL IN THE MEDITERRANEAN.

A diagram of this shoal has been received at the office of the Navy Commissioners, from Commo. Elliott, commanding the U. S. squadron in the Mediterranean, showing its extent, position, and depth of water, as surveyed in December, 1837, by H. B. M. cutter Hind, by the order of Admiral Sir Robert Stopford, and from which the following particulars are taken:

It lies in lat. 37° 11′ N., lon. 12° 44′ E., and appears to extend in a N. W. and S. E. direction about 400 yards, and its breadth from N. E. to S. W. 350 yards. Soundings near the shoal part 13 fathoms, cinders and ashes. The least water on the shoal is 1 1-2 fathoms, near its eastern edge, where the bottom, plainly seen, is large white stones and sea weed.

Its bearings by compass,

From the S.E. point of Pantalaria, about E.N.E. 40′
" Cape St. Marco, S.W. 1-2 W. 23′
" Cape Granitola, S. 1-4 W. 24′
" Cape Beanco, W. 1-2 S. 28′

Near the shoal, to the westward, are from 40 to 50 fathoms water.

There is no truth in the rumor, originating in the Philadelphia Herald, that Lieut. Wilkes has resigned, or at present intends to resign, the command of the Exploring Squadron.

The steam ship Great Western was spoken on the 14th May, in longitude 44, having completed about half her passage to England in one week.

We learn that Governor Dodge is offered the situation of brigadier general in the army, and that the Hon. Aaron Vanderpoel of Kinderhook, is spoken of as his successor.—*Green Bay Democrat.*

[There is no vacancy in the army of the grade above mentioned, and if there were, it is not probable that Gov. DODGE would be appointed over the heads so many gallant and veteran men already in the service.—*Ed. A. & N. C.*]

ITEMS:

Gen. WALTER SMITH, late of the U. S. Army, has become the proprietor and editor of the Mobile Chronicle.

Major L. G. DE RUSSY is announced in the Natchitoches Herald as a candidate from that district for the Senate of Louisiana. It is understood to be his intention to retire from the army.

A detachment of about one hundred U. S. recruits left Buffalo in the steamboat Constellation, Captain Robertson, on Friday 25th ult., under the command of Lieut. P. V. Hagner, and destined to the different posts on the upper lakes.

The Arkansas river is now clear of obstructions as high up as the city of Little Rock, except in very low stages of water.

The United Service Journal for March contains copious extracts from an epitome of Mr. POINSETT's annual report to the President, of December last.

Seamen's wages have risen in New York to eighteeen dollars per month. The Liverpool, London and Havre packets, whose day of sailing was the 1st June, were detained two days in consequence of their crews having refused to take fifteen dollars.

ARRIVALS AT WASHINGTON.

May 31—Major J. A. Ashby, 2d Dragoons,		Gadsby's.
	Lieut. A H. Tappen, 5th Infy.	Brown's.
	Capt. J. H. K. Burgwin, 1st Drags.	Fuller's.
	Capt. T. P. Gwynne, 1st Infy.	Gadsby's.
June 6—Brig. Gen. J. E. Wool,		Gadsby's.
	Lieut. R. E. Temple, 3d Arty.	do.

LETTERS ADVERTISED.

WASHINGTON, June 1.

ARMY—Major J. B. Brant, 3, Col. J. Bankhead, Lt. Wm. Gilpin, Capt. C. Thomas, 2, Lt. G. H. Talcott.

NAVY—Dr. A. A. Adee, Mid. W. A. Bartlett, Pur. E. N. Cox, 3, P. Mid. J. Carroll, Rev. W. Colton, 2, Lt. Geo. N. Hollins, P. Mid. W. A. Jones, Lt. C. H. Jackson, Mid. W. P. McArthur, F. Pepin, Lt. L. M. Powell, 4, Lt. W. D. Porter, Lt. H. Pinkney, Dr. S. W. Ruff, Purser F. B. Stockton, Mid. A. A. Wier.

MARINE CORPS—Lt. J. R. Wilson, 3.

PASSENGERS.

NEW ORLEANS, May 17, per U. S. transport Columbia, from Tampa Bay, Lieuts. B. Conkling, W. W. Chapman, R. A. Luther, Armstrong, Morgan, Woodbridge, E. A. Ogden, Surgeon R. C. Wood, Ass't Sur. Suter, U. S. A., and 137 privates.

Per brig Spartan, from Tampa Bay, Brig. Gen. W. K. Armistead, Major H. Wilson, Surgeon H. A. Stinnecke, U. S. A., Lieuts. H. Garner, R. C. Buchanan, Geo. Lincoln, and 135 privates.

Per schr. Caroline, from Cape Sable, Lieuts. Palmer and Evans, and 90 U. S. troops.

May 20, per steamer Tuskina, from Natchitoches, Capt. J. S. Worth, Lieuts. A. Cady, and W. S. Ketchum, Dr. Leavenworth, U. S. A. and 125 U. S. soldiers, bound to Florida.

NEW YORK, May 28, per ship Ville de Lyon, for Havre, Lieut. W. P. Griffin, of the navy, and lady.

CHARLESTON, May 27, per steam packet Georgia, from Baltimore, Capt. J. Page, of the army, lady and servant.

DOMESTIC INTELLIGENCE.

From the New Orleans Bee, May 23.

The owners of the brig Paragon (citizens of the U. States) feel it a tribute to Sam'l L. Breese, Esq., Commander U. S. Navy, commanding the sloop Ontario of the West India Squadron, to express through this medium their high sense of obligation for services rendered them, and their mercantile friends in the United States, in fitting out said brig from the port of Vera Cruz.

This vessel, built at Philadelphia, came into the possession of the proprietors about the period of the present blockade, and through the civility of Commodore Bazoche, commanding the naval force of the French in the Gulf of Mexico, was allowed to the 8th of the present month to load and depart. It being found, however, impracticable to accomplish all that was desired within the period limited, the aid of Captain Breese was solicited, who, with the courtesy characteristic of our naval officers, not less active in the discharge of their trust in time of peace than gallant in war, kindly rendered his assistance, thus enabling her to sail within the stipulated period, and by which, property of citizens of the United States has been removed from casualties that might otherwise attend.

It is also just to state that through the instrumentality, principally of Capt. B., special permission was extended to the bark Ann Eliza, James Briscoe, master, of and from New York, for that vessel to leave the port of Vera Cruz on the 15th inst., without interruption from the blockading squadron, she having on or about the 23d April reached Vera Cruz, unadvised of the existing blockade.

The friendly disposition as manifested on the part of the commander of the blockading forces, in relation to the above, favoring the commercial interests of the United States, and his disinclination to exert aught that might prejudice the commerce of a friendly and neutral power, not in conformity with the laws of the blockade, is likewise to be duly appreciated.

NEW ORLEANS, May 20, 1838.

PENSACOLA, May 19.—The seamen of the late expedition to South Florida, arrived on the 2d May, in the schr. Heroine from Key West. The expedition has been upon the eastern coast during the winter, in co-operation with the northern column of the army; the last expedition was made in company with Col. BANKHEAD and Major LAUDERDALE, into the Everglades. They found Sam Jones on the Pine islands, but the Indians escaped in the night—the troops having landed after sunset. The war seems to be at a close. Lieut. POWELL left his boats and artillery companies at Key Biscaine and Key West, having navigated the coast from Mosquito to the latter place in them. Acting Lieutenant MURPHY was the only officer accompanying Lieut. P. to this place; the remainder having returned to the north.

The French brig of war Eclipse sails this day to join the blockading squadron on the Mexican coast. She bears despatches from the French Minister at Washington to the squadron.—*Gazette.*

Five hundred Seminole Indians, destined for their new home beyond Fort Gibson, left New Orleans on the 20th ult. There were no negroes among them. Just as the steamboat left the Levee, she was met by the Tuskina, from the Sabine, with U. S. troops on board, and quite a scene took place. The cheers, greetings, and yellings, from each to each, were animating and cheering. There was at the same time on the Levee, a company of U. S. troops from Fort Pike. The Indians were well provided for, and appeared to be contented and happy at the prospect of getting once more into the forests.

RETURN OF VOLUNTEERS.—Lauderdale's battalion of Tennessee volunteers have reached Nashville, on their way to their respective homes. The troops were mustered out of service at Baton Rouge, Louisiana, where, we regret to learn, they lost by death, their late commander, Major Lauderdale. Major L. labored under a pulmonary disease for several months before the close of the campaign, and it was not expected by his physicians, on leaving Florida, that he would live to reach New Orleans.

New Orleans slips of the 26th ult. mention the arrival there of three companies of the 3d regiment of artillery, from Tampa Bay. They were on their way to the Cherokee country.

The following officers are with them: Surgeon Gen. Lawson, Surgeon Satterlee, Lieut. Col. Gates, Lieuts. Poole, A. P. Allen, C. Tompkins, Wm. Frazer, E. J. Steptoe, R. Ridgely, of the 3d art'y, and adj't.; and Wooster of the 4th artillery.

The U. S. brig Washington, and schooner Jersey, dropped down on Thursday [24th ult.] to Buttermilk Channel from the the navy yard, previous to commencing their duties on the general survey of the coast, under the direction of F. R. Hasler.

Thos. R. Gedney, *Lieut. Commandant. Lieutenants*, I. S. Sterett, C. Rowan, A. Griffith, R. W. Meade. *Surgeon*, M. G. Delaney. *Passed Midshipmen*, Franklin Clinton, J. L. Ring, A. A. Holcomb, Wm. H. Ball, Levin Handy, R. Bache, D. D. Porter, O. H. Berryman, C. Patterson, R. Wainwright.—*New York Star.*

Norfolk, May 30.—Commodore Casey, of the French line of battle ship Hercule, visited the navy yard on Monday, and was saluted by the Java, the flag ship of Commo. Warrington. The French Commodore will leave town to-day for Baltimore and Philadelphia.

It is said that the Hercule, with her consort, will sail for France on the 20th of June. It is certain that the short residence of the Prince de Joinville in Washington does not augur a long abode in this country.—*Beacon.*

Departure of the French Fleet.—We learn that the French line of battle ship Hercule, and the corvette Favorite, will sail to-day for Newport, R. I. The sailing orders were peremptory, and the visit of Commodore Casey to Baltimore and Philadelphia, as noticed in our last, was necessarily postponed.

It is due to the officers of the French ships to say that their conduct toward those who visited their ships has been liberal and courteous in the highest degree. During the past week, while the Baltimore boat was waiting in the Roads for the boat from Richmond, and, for the gratification of the passengers, passed near the ships, the American Flag was immediately hoisted by them, and the princely band of the Hercule struck up *Hail Columbia;* Commodore Casey also despatched a barge to the steamboat with the request that the passengers would visit his ship. Several getlemen accepted the invitation, and were not only delighted with the structure and elegance of the Hercule, but regaled with a handsome collation set off with the choicest wines. They describe the apartments of the young Prince as commodious and elegant, and the Hercule as altogether an admirable specimen of a first rate line of battle ship.

We know not the cause of the abrupt departure of the French ships for Newport; but it is possible that the case of a ship recently arrived there under suspicious circumstances, which were published a few days since, and alluded to in another column, may afford an explanation.—*Norfolk Beacon, June* 1.

The U. S. ship Pennsylvania came out of the dock on Monday.—*Ib.*

West Point, May 25.—Yesterday the last rites were performed over the remains of the gallant Col. Thompson, which arrived here the previous night. At half past 3 P. M. the funeral service commenced in the chapel by prayer, after which an excellent and feeling address was delivered by Dr. Ferris, of New York.

A procession, consisting of an escort from the corps of Cadets, the officers of the post and the family of the deceased, attended his remains to the grave, where they now repose beside those of his father. Two consecutive graves occupied by the father and the son, who both shed their blood in the defence of our beloved country. To those who were personally acquainted with Colonel Thompson, it will be needless to enumerate his merits, and to those who were not favored with his acquaintance, it will be sufficient to say, that he died a brave soldier and an exemplary Christian.—*N. Y. Com. Advertiser.*

From the United States Gazette.

Commodore Woolsey.—Recent intelligence informs us of the death of this distinguished officer, at his late residence in Utica, State of New York. As a passing tribute to his memory, permit me to say, that in his death the navy has met with the loss of a gallant officer—one possessing a strong and well cultivated mind—to the junior officers a kind and affectionate friend, as many can bear testimony; he looked to their comforts and advancement in the service, with the solicitude and kindness of a father. His system of discipline was at *all times* tempered with mildness, and at the same time with firmness of purpose, always regarding the feelings of his officers, and never permitting himself to fly into a passion, or wound with the keenest cut that can be inflicted on the pride of a junior—reprimand, or insult in the presence of the crew. Possessing a generous, frank, and good heart, how could he do otherwise? The writer of this feeble notice of his death had the honor to serve under his command, and knew him well; was an observer of his many kind expressions towards the juniors of the navy, and the interest he seemed to feel for their welfare and advancement in the service. He exacted from all strict obedience to the rules and regulations. This done, he *studied* to make *all* happy. Hence, I say, the juniors have lost a valuable friend—the country a valiant naval commander—the State which gave him birth, and of which he was a citizen, one of her worthiest citizens. The loss that has overtaken a numerous and amiable family—ah! sad reality—we can but faintly imagine.

A Junior Officer of the Navy.

From the Baltimore Patriot.

Extract from a letter dated

U. S. ship North Carolina,
Valparaiso, Feb. 12, 1838.

We left Peru in December; they were rejoicing in the most extravagant manner at the anticipated peace. The North Carolina had to expend 3 to 400 lbs. of powder on the occasion. Peace was glorious news to me, not that I cared if they had fought, as did the Kilkenney cats, but that I wanted to be away from that infernal place, Callao—where we had been at anchor *only eight months.* Judge of our astonishment, when coming into the harbor of Valparaiso, to meet among the leading of the Chilian *fleet,* the brig that a few days before had exchanged salutes with the Castles of Callao, in the celebration of the prospect of peace—was on her way to blockade that port—Chili having refused to ratify the treaty entered into by the Supreme Protector and Gen. Blanche.

The Lexington has just arrived from Callao—saw the action between the "Libertad," (Chilian,) and Confederation, (Peruvian,) sloops of war—the latter was captured with her illustrious passenger, General Bolivar, Santa Cruz's brother-in-law. The Lexington came in while we were at dinner; expecting she had letters, and wishing to see her crew too, we hurried on deck; just where the unfortunate Essex met with an accident, the Lexington carried away her mizen-top-gallant mast—notwithstanding, she made a beautiful appearance. She brought news of the death of Mr. Thornton, U.S. Chargè d'Affaires at Lima—he had been invited by Com. B. to make a visit to this place, thinking it would be beneficial to his health—he had accepted, and took passage in the

Falmouth—ten days out he was taken sick—he was landed at Callao, where he died. He was intelligent and warm hearted—much esteemed. From letters he expected to return to his family in a month or two, now he is buried thousands of miles from them; truly, "the days of man are but as grass."

It has been stormy—several accidents have happened with the shipping. The new packet, London, ran into a ship ahead of us yesterday; she was so much injured as to be unable to work—she drifted down broadside of this ship—by a mere chance did not strike, or the insurance office would have been minus ship and cargo.

VALPARAISO, Feb. 14—The Governor of Valparaiso took Gen. Bolivar this morning to look at the city—his attention was called off for a short time; the General, finding himself near water, put out for this ship—the Governor pursuing him very closely, forced him on board the Andesmeda, (French ship.) where he still is; if he has a particle of feeling he will immediately give himself up, as it is placing Com. Villeneur in a very uncomfortable position.

Com. Ballard enjoys fine health—all well on board.

We are expecting Glendy; he has been on a cruise to the Gulf of California for 6 months—he is to be relieved by Capt. Nicholson.

The Lexington left the Falmouth, in Callao; your townsman, Capt. McKeever, and all well.

From the New York American.

COAST SURVEY.—This morning was launched at Webb & Allen's ship-yard, a beautiful schooner, called the *Nautilus*. This vessel is under the command of Lieut. Blake, and is to be employed on the Coast Survey of the United States, under the direction of Mr. Hassler.

A few remarks on this great national undertaking would not be inappropriate as it is a subject which is not either appreciated or understood by those even most interested, the mercantile community. A brief statement of what has been done in our "father land," will enable a comparison to be made which, we think, will show the superiority and rapidity of the method adopted by the distinguished individual who has charge of it.

In 1783, at the suggestion of M. Cassini, the Royal Society, through Sir J. Banks, its President, recommended to the BritishGovernment the commencement of the triangulation of the S.E. part of England, to connect the two great observatories of London and Paris. In 1784 they commenced active operations, and which have been going on in the kingdom up to this time. It was not until 1812, however, that the British Government, with all their zeal for accurate hydrographical knowledge, undertook to connect it with hydrographical surveys. In that year, Capt. White, R. N., began the examination of the English Channel, which is the basis of the charts now in use. It is, however, strange as it may seem, a fact, that there never has been any examination of St. George's Channel from the Tuskar to the Maiden Rocks, up to this day, and all the charts made of that immense thoroughfare are from tradition or rough sketches, with the exception of Liverpool entrance and Lundy island, on the eastern side. Lieut. Sheringham has, within the last two years, been engaged in Cardigan Bay, and we do not doubt ere long we shall have something of an accurate character.

Captain Hewitt, R. N., has been the last three years engaged in a detailed laborious examination of the North Sea. Other officers are also engaged in different points of that coast, and we have no doubt, ere long, they will be able to show charts to rival those of the coast of France, or the Austrian charts of the Gulf of Venice.

In 1832 the survey of our coast was first organized, and in that short time so much has been done, that already four vessels are in service, viz: the brig Washington and schr. Jersey, under the command of Lt. Gedney, and the schrs. Experiment and Nautilus, under Lieut. Blake. The work already finished, for accuracy and fullness of detail, is equal to any done in any country, and in quantity, is more than ever has been produced in double the time employed.

It is due to the Secretary of the Treasury, under whose department this great work is placed by law, to state that he has given every facility and shown every disposition to advance it, and in the future he may look back with satisfaction to the part he has taken in benefitting one of the most important and neglected classes of the community, the MARINER.

PORTRAIT OF GEN. CLINCH.—Mr. B. HEADDEN, of Augusta, has painted a portrait, in full uniform, of that gallant officer and citizen of Georgia, General CLINCH, and has presented a copy to the city council of Agusta, who have placed the same in the council chamber, in company with those of WASHINGTON and LAFAYETTE.

We have been informed that an officer of high rank, who was sent to this country on special service, has made the tour of Upper Canada, and has reported that, for the preservation of internal tranquillity, it will be necessary to have six regiments stationed in our sister Province during the summer, as the American settlers are ripe for a revolution. This only proves what we have repeatedly asserted, that that portion of the population is any thing but loyal, in certain districts.—*Montreal Herald.*

From the Albany Argus, June 1.

FROM THE NORTHERN FRONTIER.

DARING OUTRAGE.—An express from Watertown reached this city yesterday afternoon, bringing despatches to Gov. Marcy, from the District Attorney Marshal, &c., at that place; by which we regret to learn that a most extraordinary outrage was committed within the American waters, early on Thursday morning The British steamboat Sir Robert Peel, laying to about seven miles from French creek, on the river St. Lawrence, was forcibly seized by a body of armed men, supposed to be Canadian refugees, set on fire, and entirely consumed.

The subjoined extracts from the letters to the Executive, afford all the information yet received touching this affair. We trust that, by the prompt action of the civil authorities, aided by the military, all farther aggression or apprehended retaliation may be prevented; and that the perpetrators of the outrage may be discovered and brought to merited punishment.

Gov. Marcy, conceiving the circumstances such as to require the immediate interposition of the State authorities, left town soon after the arrival of the express, in the evening cars for Utica, and thence by relays of horses to Watertown.

From GEORGE C. SHERMAN, *District Attorney.*

WATERTOWN, May 30, 1838.

To His Excellency, WM. L. MARCY:

DEAR SIR: I have this moment received by express from H. Davis, Esq., custom-house officer at French creek, a letter, of which the following is a copy, and the information therein contained may be relied upon as correct:

"CLAYTON, May 20, 1838.

"SIR: Last night the British steamer Sir Robert Peel, was boarded near this place by about 50 armed men in disguise; the persons on board driven on shore, and the boat set on fire, and wholly consumed. You are requested to aid the proper authorities in the affair, or to advise the proper course to be taken.

"Respectfully yours, H. DAVIS.

"G. C. SHERMAN, Esq."

In addition to the above, the messenger informs me that, although no lives were lost, as is yet known, the mate of the Sir Robert Peel was badly burnt on board the vessel.

Our steamer Oneida, on her way to Ogdensburgh, this morning, volunteered and took the crew on board, and carried them to Kingston.

The whole community here is excited and alarmed to the greatest extent, at this unwarrantable outrage, and a retaliatory spirit, that has only slept, upon the other side, it is feared, will be again excited, and to an extent beyond control.

The steamer Sir Robert Peel, it is said, was taking in wood at Mullet creek bay, or at the Narrows below, about seven miles from the creek.

I deemed it due to the Executive that he should be immediately apprised of this affair: the more especially as we are left here without any regular officer of the army to whom to apply. Col. Cummings, who has been at Sacket's Harbor, and who had been directed by Gen. Wool, as it was understood, to take charge of this frontier, is now absent.

I have this moment learned that Capt. Armstrong had command of the Robert Peel, against whom, it is said, the refugees had an old grudge. He resided in this village during the last winter, and was charged with being a spy upon their operations. I mention this circumstance as authorizing the belief that this act has proceeded from the patriots, or refugees, on this side.

The present impression is, that we shall be unsafe on the frontier without an armed force; and immediate measures will be required to afford ample protection to British vessels in our waters, or all confidence and intercourse will be broken up.

I have thought it advisable that Gen. Cross, of the militia, should call out one or two companies of dragoons, to go to French creek, whither I shall proceed with the Sheriff this afternoon.

No person, to our knowledge, was recognised, as having been engaged in this outrage, but individuals residing at French creek have been missing for several days. A portion of the Sir Robert, it is said, was owned by a citizen at Ogdensburgh.

From JASON FAIRBANKS, *Deputy Marshal.*

"I intend immediately to repair to French creek, with Doctor Carrier, the collector, and an officer, authorized to call out the militia, if necessary. A letter has just been received from French creek, calling for a force to protect them from being burnt tonight, as a measure of retaliation.

"All is excitement here; and a rumor is afloat that the arrangements of the pirates were to make a simultaneous attack upon eight different boats at different places."

From FRANCIS MALLABY, *Master U. S. N.*

"The vessel was set on fire and consumed within seven miles of French creek, and *within our waters*, while taking in wood. There appears no doubt that the expedition was got up from this side, although, as yet, no persons have been identified as actors in the scene. It is satisfactory to state that no lives were lost."

A gentleman, direct from Oswego, informs the editors of the Albany Evening Journal, that ten of the persons who burnt the steamboat Sir Robert Peel have been arrested. One of the number is an American. The others from Canada. It is reported that some of the property of which the boat was plundered, was found in possession of the men.

IMPROVEMENT IN ARTILLERY.—A cannon of small calibre, on a new plan, invented by Captain Thistle, is now standing for exhibition in the Arcade. It differs from the ordnance in common use, in the mode of loading, the ammunition being inserted at the breech instead of the muzzle. The facility and rapidity of loading and firing obtained by this invention, is said to be very great. Captain Thistle boasts that, with one assistant, he can load and fire oftener, in a given time, than any two field pieces of the old fashion.—*New Orleans Com. Bulletin.*

FOREIGN MISCELLANY.

From the London Nautical Magazine for April.

NAUTICAL SURVEYS.

MR. EDITOR: The numerous shipwrecks which occur every year in St. George's Channel, owing principally to a want of means of obtaining a proper knowledge of the soundings, velocity, and directions of the rapid currents of its waters calls imperiously upon the proper authorities to hasten the completion of the survey of that very important sea. Vast sums have been expended on expeditions towards the North Pole, surveys of Africa, Straits of Magellan, New Holland, &c., while this great avenue to our principal sea ports has been comparatively neglected; tidal observations and soundings are very much wanted from the Saltees on the Irish coast to Dublin, between the latter end of the Isle of Man, thence to Holyhead and Smalls; in fact, the whole deep water soundings of the channel below the Isle of Man are unknown. The S. W. coast of Ireland has been well surveyed as far east as the Saltees by Captain White; and his tidal observations are very important to the navigation. The Welsh coast, as far the Smalls, is also published; but north of this, although the coast of Wales is surveyed by Lieutenant Sheringham, little or none of the kind of information most valuable to the mariner during the dark stormy nights of the channel has been furnished him by Government. The survey of North Wales, by Lieutenant Robinson, is a most valuable acquisition to the navigator, just published by Captain Carden. But why this delay? Why was it left for a private individual to publish in 1838 a survey made in 1834-35? Why is the survey of that dangerous part of the coast of Wales between Holyhead and the Smalls, by Sheringham, not published? it seems most selfish to withhold such important information.

The only safe roadstead on the coast of Wales, between Holyhead and Milford, is Studwell road. Particular charts of this important place of shelter to the distressed mariner, with sailing directions, views, tidal observations, &c., ought now to be published. Every seaman feels deeply the importance of it; many lives and much property might be annually saved, by giving to the mariner facilities for acquainting himself with the harbors, tides, soundings, and roadsteads of this much frequented channel. One would suppose that the frightful annual loss of 500 to 700 British ships would awaken Government to the importance of the subject. It appears to me unfortunate that Col. Colby, in his trigonometrical survey of Ireland, did not proceed from Dublin, south to Tuskar. In that case, this dangerous part of the Irish coast and banks might have been surveyed long before this, in connection with the triangulation. Many vessels are wrecked on the banks north of the Tuskar, owing to a want of knowledge of the tides, soundings, &c. It is hoped that something will be speedily done to lessen the danger of navigating this coast in dark stormy nights and foggy weather. It is a little surprising that no chart or sailing directions, now published, will enable mariners to ascertain the vertical rise of the tide at Tuskar, about Wexford, or in the dangerous region of the Arklow or Blackwater Banks!!

From Galignani's Messenger.

The Captain of the corvette Heroine, now on a cruise in the South Seas, has sent home an account of the shipwreck of two American vessels, the Atlas and the Colossus, which were lost last year among the Crozet islands, south of the Cape of Good Hope. The shipwrecked men, to the number of thirty-six, were thrown on a desert rock, five hundred leagues from any inhabited land, where they passed the winter (summer of 1837.) They set aside all the provisions which could be saved, for exigencies, lived

on sea fowl, and constructed a house from the wreck of the vessels to protect them from the severity of the weather. Captain Barnum, commander of the Atlas, had resolved to go to the Cape in a frail boat for assistance, but was prevented from undertaking his perilous voyage by the arrival of the Heroine, by which vessel the unfortunate men were saved.

BED OF THE OCEAN.—But the production of beach, and gravel, and sand on the shores, and the drifting of sand island, are effects far less important than those which are going on in the profound depth of the ocean. In the tranquil bed of the sea, the finer materials, held in mechanical or chemical suspension by the waters, are precipitated and deposited, enveloping and imbedding the inhabitants of its waters, together with the remains of such animals and vegetables of the land as may be floated down by the streams and rivers. * * Yes, in these depositions the remains of man, and of his works, must, of necessity, be continually engulphed, together with those of the animals which are his cotemporaries. Of the nature of the bed of the ocean, we can, of course, know but little from actual observation. Soundings, however, have thrown light upon the deposites now forming in those depths, which are accessible to this mode of investigation, and thus we learn, that, in many parts, immense accumulations of the wreck of testaceous animals, intermixed with sand, gravel, and mud, are going on. Donatti ascertained the existence of a compact bed of shells, one hundred feet in thickness, at the bottom of the Adriatic, which, in some parts, was converted into marble. In the British Channel, extensive deposites of sand, imbedding the remains of shells, crustacea, &c., are in the progress of formation. This specimen, which was dredged up at a few miles from land, is an aggregation of sand with recent marine shells, oysters, muscles, limpets, cockles, &c., with minute corallines; and this example from off the Isle of Sheppey, consists entirely of cockles, *(Cardium edule,)* held together by conglomerated sand. In bays and creeks, bounded by granitic rocks, the bed is found to be composed of micaceous and quartzose sand, consolidated into what may be termed regenerated granite. Off Cape Frio, solid masses of this kind were formed in a few months; and in them were imbedded dollars and other treasures from the wreck of a vessel, to recover which an exploration by the diving bell was undertaken.—*Mankill's Wonders of Geology.*

ARMY.

OFFICIAL.

GENERAL ORDERS No. 14. } HEAD QUARTERS OF THE ARMY, ADJUTANT GENERAL'S OFFICE, *Washington, June* 4, 1838.

I....Instead of taking post at Fort Gratiot, as directed in "General Orders," No. 13, Company B, 2d Infantry, will proceed to Madison Barracks, Sacket's Harbor, New York, and re-occupy that post. Captain Low's company D, of the 5th Infantry, now at Fort Winnebago, will repair without delay to Fort Gratiot, and occupy that post.

II....All the disposable recruits on the New York station will be sent without delay to Madison Barracks, and ordered to report to the commanding officer.

BY ORDER OF ALEXANDER MACOMB:
MAJOR GENERAL COMMANDING-IN-CHIEF:
ROGER JONES, *Adj't. Gen.*

SPECIAL ORDERS.

May 31, No. 31—Leave of absence until August 31, to B'vt Major Ashby, 2d dragoons.

Lt. W. G. H. Freeman, 4th art'y, temporary duty at Fort Monroe, Virginia.

June 1—Lieut. S. T. Tibbatts, 4th infy., ordered to close the Recruiting Rendezvous at Louisville, and report to the commanding officer at Newport, Ky.

NAVY.

ORDERS.

May 29—P. Mid. G. L. Selden, Navy Yard New York.
Boatswain L. Smith, ship Cyane.
31—Lieut. C. Ringgold, command of brig Dolphin.
P. Mid. T. M. Brasher, Navy Yard, N.York.
June 1—Lieut. W. W. Hunter, Rendezvous, Norfolk, *vice* J.W.West,relieved at his own request.
2—Purser J. C. Holland, ship Erie, *vice* B. J. Cahoon, relieved at his own request.

OFFICERS RELIEVED AND DETACHED.

May 29—P. Mid.J.J.White, from Rec'g ship at Boston.
Lieut. F. A. Neville, from ship Erie.
Boatswain Wm. Farrow, from ship Cyane.
31—Lieut. Robert Handy, from ship Erie.

APPOINTMENT.

Lemuel Smith, acting Boatswain, May 29.

VESSELS REPORTED.

At Sacrificios, May 8, ship Ontario, Com. Breese, who had rendered essential service to the commerce of the U. S. by his presence since the commencement of the blockade.

Officers of the Ontario.

SAM'L L. BREESE, *Commander;* Sam'l Barron, N. W. Duke, Henry French, Henry J. Paul, *Lieutenants;* Jos. Bryan, *Purser;* Wm. S. Smith, *Acting Master;* A. G. Gambrill, *Surgeon;* Robert Burts, Wm. H. Macomb, John M. B. Clitz, C. J. Throckmorton, *Midshipmen;* Charles Francis, *Captain's Clerk;* Benjamin F. Ferris, *Purser's Clerk;* R. H. O'Neal, *Boatswain;* E. Whitten, *Gunner.*

Ship Natchez, standing towards Vera Cruz, was seen May 10.

May 14, spoken, frigate Constellation, bearing the broad pendant of Com. Dallas, from Pensacola, bound for Tampico and Vera Cruz, six days out, and all well. Lat. 27 50, long. 92 W.

At Valparaiso, March 3, ships North Carolina, Commodore Ballard, for Callao, and Lexington, Capt. Clack, for Talcahuana, soon.

Officers attached to the Lexington.

JOHN H. CLACK, Esq., *Commander;* J. Noble, J. B. Cutting J. J. Glasson, B. Shepard, *Lieutenants;* H. S. Coulter, *Surgeon;* W. P. Zantzinger, *Purser;* S. W. Kellogg, *Assistant Surgeon;* J.M. Frailey, *Acting Master;* B. F. Shattuck, *Passed Midshipman;* F. E. Baker, R. P. Lovell, P. C. VanWyck, T. K. Perlee, *Midshipmen;* W. C. Zantzinger, *Captain's Clerk;* Charles Postemski, *School master;* P. Dee, *Carpenter;* H. Bacon, *Sailmaker;* W.Burton, *Acting Gunner;* Wm.M.Cooper, *Acting Boatswain.*

Ships Independence, Commo. Nicolson, and Fairfield, Com'r Mayo, arrived at Rio Janeiro, April 7, from Bahia.

Frigate Constitution, Commo. Elliott, at Port Mahon, April 11—all well.

MARRIAGES.

In this city, on the 29th ult., by the Rev. Frederick Beasley, WM. HEMSLEY EMORY, late of the U. S. army, to Miss MATILDA W. BACHE.

In Baltimore, on the 28th ult., Col. B. K. PIERCE, U. S. Army, to LOUISA G. daughter of the late GEO. READ, of Newcastle, Del.

At Cottage, near the Lake, in the vicinity of Tallahassee, Florida, Gen. LEIGH READ, of Tallahassee, Florida, to Miss M. ELIZA BRANCH, daughter of the Hon. JOHN BRANCH, formerly Secretary of the Navy.

At the navy yard, Pensacola, on the 9th ult., by the Rev. Mr. Sanders, Mr. ROBERT S. WENTWORTH, to Miss MARY ELIZABETH, only daughter of N. WARREN, Esq., Master U. S. Navy.

DEATHS.

At Newark, N. J., on Friday evening, 18th ultimo, Col. JAMES HEDDEN, in the 83d year of his age. During the Revolutionary war, Col. Hedden was actively engaged as Adjutant and Major of the militia called out in aid of the regular service.

At New York, on the 29th ult., of apoplexy, Major JACOB REED, of the revolutionary army, and aid-de-camp to Gen. Washington. His remains, were attended to the grave by the Society of Cincinnati, and a batallion ofInfantry from Gen. G. P. Morris's 6th brigade.